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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

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April 3, 2012

David Hibbs, President  
West Ridge Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520-0910

Subject: Division Order to Update the Probable Hydrologic Consequences, West Ridge Resources, Inc., West Ridge Mine, C/007/0041, DO-12A

Dear Mr. Hibbs:

Based upon a review of the current Mining and Reclamation Plan ("MRP"), submitted water monitoring data and field observations, the Division has determined that the MRP for the West Ridge Mine does not adequately address the potential impacts of coal mining and reclamation operations on water resources and State-appropriated Water rights located within and adjacent to the West Ridge Mine permit area as required by R645-301-724, 728. The currently approved MRP does not adequately assess the potential impacts associated with long-term mine-water discharges at the West Ridge Mine.

The Division is therefore requiring West Ridge Resources, Inc. to revise the current Mining and Reclamation Plan (MRP) to include a plan that addresses the findings of permit deficiency in the enclosed Division Order. This plan must provide additional baseline data and describe potential impacts to surface and groundwater, water rights and the potential for post-mining discharges from the mine. Please see the enclosed Division Order.

If you have any questions regarding this order, please contact me at (801) 538-5320.

Sincerely,

Dana Dean  
Associate Director

DD/SKC/ss  
cc: Price Field Office  
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**STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING**

**PERMITTEE**

David Hibbs, President  
West Ridge Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520

PERMIT NUMBER C/007/0041  
DIVISION NUMBER DO-12A

**ORDER &  
FINDINGS OF  
PERMIT DEFICIENCY/PROBABLE  
HYDROLOGIC CONSEQUENCES**

PURSUANT to Utah Admin. Code R645-303-212, R645-303-220, and in accordance with the requirements of the State Coal Program ("State Program") at R645-301-722 et seq., R645-301-724 et seq., R645-301-728 et seq. and R645-301-731.530, the DIVISION ORDERS the PERMITTEE, West Ridge Resources, Inc., to address the deficiencies outlined in Findings of Permit Deficiency in order to be in compliance with the State Program. These deficiencies are to be remedied in accordance with Utah Admin. Code R645-303-200.

**FINDINGS OF PERMIT DEFICIENCY**

1. Based upon a review of the current Mining and Reclamation Plan ("MRP"), submitted water monitoring data and field observations, the Division has determined that the MRP for the West Ridge Mine does not adequately address the potential impacts of coal mining and reclamation operations on water resources and State-appropriated Water rights located within and adjacent to the West Ridge Mine permit area as required by R645-301-724, 728. The currently approved MRP does not adequately assess the potential impacts associated with long-term mine-water discharges at the West Ridge Mine. The PHC discusses the groundwater systems encountered within the Blackhawk Formation and indicates that *"Because of the limited spatial extent of these systems, discharge from these isolated groundwater systems will cease soon after interception by mine workings"*.
2. Unanticipated mine-water discharge was first reported to the Division on February 27, 2003 at a rate of 111 gallons per minute ("gpm"). Utah Pollutant Discharge Elimination System ("UPDES") Outfall 002 is identified as the discharge point for mine-water for UPDES Permit No. UT0025640.
3. Since the first reported mine-water discharge at Outfall 002, the discharge has steadily increased to 2,314 gpm as reported February 29, 2012.
4. The baseline data provided in West Ridge's MRP does not account for or include this increased unanticipated mine-water discharge.

5. West Ridge's currently approved Probable Hydrologic Consequences ("PHC") portion of the MRP does not adequately gauge and address the potential impacts associated with the unanticipated interception of groundwater and its subsequent discharge into the C Canyon drainage.

Based on these findings of deficiency, the baseline data and PHC sections of the MRP must be revised as follows:

### **ORDER**

West Ridge Resources, Inc. is hereby ordered to complete the following items and make the requisite permit changes in accordance with R645-303-212, R645-303-220, R645-301-722 et seq., R645-301-724 et seq., and R645-301-728 et seq. Within 90 days of the date of receipt of this ORDER, West Ridge Resources must submit a complete application for permit change that incorporates the items outlined below and addresses the findings of permit deficiency.

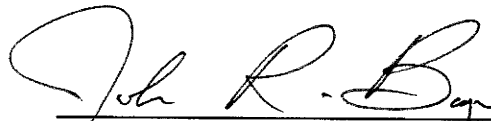
1. West Ridge Resources is required to provide additional baseline data that will characterize and describe the location and extent (areal and vertical) of the encountered mine-water discharge source area/recharge zone. At a minimum the additional baseline data must also:
  - a. Clearly identify/locate the source of the mine-water being intercepted by the mine.
  - b. Provide an analysis of the chemical and physical properties of the intercepted mine-water (i.e. seasonal quality and quantity).
  - c. Provide the approximate rates of discharge or usage for the intercepted mine-water.
  - d. Provide additional geologic information, if it's determined that a fault system is the source of the intercepted groundwater (i.e. the fault properties and hydrologic pathways).

As required by the R645-301-722, this baseline data characterization must also include cross-sections and maps,

2. West Ridge Resources is required to revise the PHC section of the MRP with supporting baseline data. The revision should provide a thorough discussion/examination of the potential impacts of groundwater interception within the mine works and its subsequent discharge into the C Canyon drainage. The revision must address (at a minimum):
  - a. Whether adverse impacts may occur to the hydrologic balance as a result of the mine-water interception.
  - b. Potential impacts to ground and surface water availability.

- c. Whether underground coal mining activity will proximately result in contamination, diminution or interruption of State-appropriated Water Rights.
  - d. Discuss how State-appropriated Water Rights would be promptly replaced in the event that a water supply has been contaminated, diminished or interrupted by underground coal mining and reclamation activities.
  - e. Discuss the potential for post-mining mine-water discharges as well as the potential for associated water quality issues and potential treatment.
3. West Ridge Resources must provide additional isotopic analyses of the untreated mine-water discharge. In October of 2000, an isotopic analysis was performed on water discharging from a sandstone paleochannel located in the roof of the mine workings. As discussed in the MRP, the tritium content was very low. Additionally, the carbon-14 analysis suggested "*very old groundwater*." Due to uncertainties in the characterization of the carbon history of the water (relative to the carbon-13 composition), the Permittee indicated that the calculation of a groundwater "*age*" was not possible. An additional isotopic analysis would provide a beneficial comparison in evaluating the recharge source of the encountered mine-water.

Ordered this 3rd day of April, 2012, by the Division of Oil, Gas and Mining.

  
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John Baza, Director  
Division of Oil, Gas and Mining